

# Corbin (G. E.)

## REPORT TO THE STATE SOCIETY BY THE COMMITTEE ON DISEASES AND TOPOGRAPHY OF INGHAM COUNTY, MICHIGAN.

BY G. E. CORBIN, M. D.

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Raton, Dec.

Fortunate indeed is it for man, that by tossing about for a few brief years upon life's billowy deep, subjected alike to the adverse breezes of admiration, flattery, criticism, competition and jealousy, he loses much of that youthful sensitiveness which is so prolific of chagrin and humiliation to youth, when reproved, and especially when required to do their work *over again*.

I have been so situated as to learn nothing more concerning the Topography of Ingham county than what I stated in my *apology* to the Michigan State Medical Society at its meeting for the year 1858. It may be somewhat adverse to the legitimate exactions of the State Society, and yet perhaps not entirely without interest to its members, to state that Ingham county has been settled something over twenty years; and although, unlike several counties in Pennsylvania, and the southern part of Illinois, it *has not* given an overwhelming majority for Andrew Jackson for President at the various Presidential elections during the time, it becomes necessary from the strongest kind of circumstantial evidence, to convict most of the practicing physicians of this county of being "*unable to read and write!*" At least, letters of inquiry addressed to them at various times during the past eighteen months—letters requesting a single word of information upon a

subject of indirect but nevertheless vital importance to humanity—letters soliciting information in order that Ingham might contribute her mite to the State Society through its own devised channels, as well as otherwise—yet remain unanswered.

With such a standard as this for the devotee to scientific medicine, what must be the mental condition of those deluded individuals away up in the northwest corner of the county, "in the woods," who amuse themselves by the preparation and distribution of *infinitesimal* potions of fanciful remedial agents?

Will not the present Legislature make an appropriation amply sufficient to complete and put in successful operation that benevolent institution located at Kalamazoo, which, if properly conducted, must inevitably do much for the amelioration of the condition of Michigan's most unfortunate citizens?

Having received no authentic information concerning the character of diseases in other parts of the county, my report will necessarily be but a mere account of the diseases falling under my own observation in this vicinity.

With a very few exceptions, I shall confine my remarks to acute diseases; and of those to sueh as either evince some marked peculiarity of type, or bear an obvious relation to the season of the year, condition of the atmosphere, temperature, or other physical causes.

*January, 1858.*—During this month, as well as the two following, inflammatory diseases, such as pneumonia, rheumatism, pleuritis, influenza, &c., prevailed — pneumonia predominating.

There were quite a number of cases of genuine intermitting fever, but no peculiarity of type in any of the diseases here mentioned.

The most interesting case of the month was a fatal case of peritonitis, or, hystero-peri-tonitis, resulting from self-induced abortion.

The perpetrator of this double crime of infanticide and suicide was a hale, well proportioned woman, of thirty or thirty-five years of age, and mother of several children, the youngest of which was about three years of age.

The mother was, at the time, living with her second husband, a man reputed to be of temperate and industrious habits, and a mild disposition. They were in comfortable circumstances, and capable of providing a sufficient maintenance for their children—the one in prospective included.

It was not until the expiration of a day or two from the time of miscarriage—her friends becoming alarmed for her safety—that a physician was called. She stoutly denied having aborted, and, in fact, even having been *enciente* since the birth of her youngest, and attributed her profuse hemorrhage to menorrhagia.

But the symptoms were too well marked, the case too plain, to permit of successful attempt at deception upon the merest tyro in such experience.

She was probably five or six months advanced in pregnancy—so far, at least, as to have attracted the attention of her neighbors—and notwithstanding subsequent developments render it conclusive that she had produced abortion upon herself numerous times during the two years preceding, revealing the secret to her neighbors, and instructing them in the process, she died denying her guilt.

This abortion was the legitimate result of rupturing the membrane. For the benefit of such women ("and their name is legion") as choose to indulge in carnal pleasure without assuming the responsibility of maternity, such as can see in innocent prattlers, rosy cheeks, sparkling eyes, and tiny ringlets, no adequate recompense for the few hours of anguish occupied in accouchment, as well as for the benefit of those *charlatans* who make a subsistence and perhaps amass fortunes by trespassing upon the credulity of the ignorant and unwary, through the instrumentality

of "*Female Monthly Pills, which should not be given during pregnancy!*" I would state that the instrument used in this case is cheap, durable, (for this one had been in actual service for years without impairing its efficiency!) light, portable, and to be found everywhere, being nothing more nor less than an *old rusty wire*, which at some more antique period had discharged the onorous duty of *bail* to a wooden pail.

*February.*—It will be remembered that during the month of December, 1857, and January, 1858, the weather was very mild, whereas, during the month of February, it was much more changeable and severe at times; and accordingly, in consulting my memoranda, I find that the cases of pneumonia occurring in this month were more numerous and severe than those which occurred in the month of January. During this month (February) and the month of March, there were, to the best of my knowledge, no cases of genuine idiopathic fever in this vicinity.

*April.*—During this month, idiopathic fevers of the two varieties, *intermitting* and *exanthematous*, predominated. The exanthematous diseases were exclusively confined to cases of erysipelas, presenting well-marked cases of the several varieties of simple, phlegmanous, and that peculiar form confining itself to the head and face. Several of the phlegmanous cases were somewhat protracted and quite severe, notwithstanding they seemed to be very favorably influenced by muriated tincture of iron. I am well aware that I am advancing no new idea, and yet in this connection I can hardly refrain from commenting upon the unfeigned expression of satisfaction and relief almost invariably given by my patients during the application of poultices made of the ground bark of the *Ulmus Fulva*, or even of soft folds of linen, thoroughly saturated with its infusion. By overlooking a file of social correspondence received from my worthy friend Dr. —, of Mason, I find that his experience for this month was somewhat different

from mine, for, under date of April 7, 1858, he states that "pneumonia seems to take precedence of all other diseases at present."

*May.*—The principal diseases manifesting themselves during this month, were pneumonia, intermitting fever, erysipelas and scarlatina ; the latter predominating. Most of the subjects of this exanthematous disease, in this vicinity, were discharged on probation after serving a brief apprenticeship under scarlatina simplex ; a few more were detained somewhat longer to receive instructions from scarlatina anginosa ; and one, I learn, a child of little more than one year of age, had scarlatina maligna to contend with, which resulted in death.

My friend Dr. —, of Mason, above quoted, under date of May 15th, 1858, says he is "having quite a number of cases of scarlatina ; most of the cases are mild, but a few assumed a malignant character."

*June.*—During this month the same diseases prevailed as during the month of May ; but they were less abundant and more mild in character. On the first day of this month it was my lot to witness the fatal termination of a case of *epilepsy*. At one o'clock in the forenoon I was summoned in great haste to the bedside of Mrs. S—, a large, muscular woman, somewhat deficient in the adipose structure, about forty years of age, and at the time nursing an infant about six weeks of age. She had no medical attendance at the time of her *accouchment*—had recovered as rapidly as usual—had been "doing her own work" for about three weeks, and on retiring at night, "felt as well as usual." Her husband was awakened in the night and found her in violent convulsions, which lasted but a minute or two, she being ignorant of what had happened, until informed by him. I found her bright, cheerful, and complaining of nothing whatever. She informed me that when a girl she had two or three "such fits" only, and those at intervals of several years, and that she had had

nothing of the kind before since marriage. That angry, jerking, indescribable peculiarity of the arterial pulsations characterizing epilepsy was scarcely discernable ; at least, but so slight'y as, in my opinion, when conjoined with other circumstances, not to demand venesection. I administered an active cathartic, left some digitalis to control the circulation, and after giving some instructions to be followed in case of a recurrence of the attack, left my patient perfectly comfortable. At 6 o'clock A. M. of the same day she had another attack, from which free venesection, friction, sinapisms, clysters, cold affusion to the head, &c., were totally inadequate to the task of arousing her. From this time until three o'clock P. M., violent spasms of from five to six minutes in duration recurred at regular intervals of just fifteen minutes ; and for the whole time up to ten o'clock P. M., at which time she expired, she was in profound carus.

*July.*--It was quite healthy in this vicinity during this month. I had one one *very severe* case of pneumonia, which, in consideration of the season of the year, and mildness of the weather, is, perhaps, worthy of mention. In the lower lobe of the right lung, the inflammation progressed to the third stage, as that of suppuration. The patient recovered, but with the natural sequence of cough, expectoration and debility, for a protracted period of time.

*August.*--During the first twenty days of this month, there was comparatively but little sickness in this vicinity; but about this time malarious diseases began to manifest themselves very rapidly.

It will be remembered that during the spring months a vast amount of water fell upon the surface of the earth; and furthermore, that the draught from about the first of June until about the twenty-fifth of August was as severe as the "spring rains" had been profuse.

The 25th and 26th days of August were emphatically "rainy days," and although malarious diseases had already

rendered themselves conspicuous, they expanded with amazingly increased velocity immediately afterward. At first the fevers were mostly distinctly intermittent, and of the quotidian and double tertian types. Soon after, however, bilious remittents predominated. Many of the cases presented considerable *gastric and intestinal irritation*—haematemesis, bloody stools, &c., being of no uncommon occurrence.

In some of the cases, the remission was very slight, grade low, tongue dry, and covered with a dark brown coat, pulse feeble, patient delirious, and manifesting other symptoms indicative of a *typhus* condition, and yet I should not feel justifiable in asserting that we had any well marked cases of genuine enteric or typhoid fever.

*September*.—Toward the middle of this month, miasmatic diseases rapidly diminished in number, but the malarial poison seemed to be more subtle and insidious than in August—its victims being sooner prostrated, and their convalescence more protracted.

*October*.—Fevers predominated, but not very abundant.

*November*.—Quite healthy.

*December*.—Numerous cases of influenza, and quite a number of cases of pneumonia, some of which seemed to be complicated with congestion of the brain and other organs.

So great was the amount, and vigorous the action of the malarial poison, (whatever it may be,) during the months of August of September last, that at least calculation *three times as much quinine* (from thirty to forty grains for an adult) was actually demanded during a single intermission, to interrupt the paroxysms of an intermittent, as was the case at any time during the year 1857.

Judging from my own experience—when so situated as to be enabled to administer the article myself—in most cases of febrile and inflammatory diseases, particularly pneumonia and rheumatism, I consider the *veratrum viride*

a very valuable remedial agent; but when left to be administered at the hands of most attendants, *inefficient*, if not actually *unsafe*.

During the latter part of summer, we had about the usual number of sporadic cases of dysentery, but no endemic of that disease, as "common report" asserted, was the case at Williamstown.

Of the births occurring under my supervision during the year 1858, the males were to the females as eight to seven.

G. E. C.

Stockbridge, January 15th, 1859.

*Statement showing the Character of Acute Diseases observed  
in Coldwater, Mich., and vicinity, during 1858.*

Diseases are named in the order in which they were most abundant.

*January.*—Pneumonia, Catarrhal Affections, Rheumatism—Most cases of disease presenting Quotidian or Tertian exacerbations.

*February.*—Pneumonia, Scarlatina, Urticaria, Neuralgia, Puerperal Fever.

*March.*—Scarlatina, Pneumonia, Laryngitis, Bronchitis, Enteritis, Purpura. [First half of month only observed.]

*April.*—Pneumonia, Laryngitis, Parotitis, Diarrhoea. [Last half of month only observed.]

*May.*—Stomatitis, Scarlatina, Rheumatism, Bilious Remittent Fever, Cerebro-spinal-meningitis, Puerperal Fever.

*June.*—Erysipelas, Scarlatina, Rheumatism, Pertussis.

*July.*—Intermittent Fever, Pneumonia, Varicella, Diarrhoea, Enteritis, Scarlatina. [Two fatal and one severe case of "sun stroke" occurred in this county, July 7—the two first R. R. laborers.]

*August.*—Diarrhoea, Intermittent Fever, Remittent Fever, Dysentery, Ague, Pneumonia, Scarlatina, Rheumatism, Cholera-morbus, Croup.

*September.*—Ague, Intermittent and Remittent Fevers, continued Bilious Fever, Diarrhea, Pneumonia, Pleuritis, Rheumatism.

*October.*—Ague, Bilious Remittent Fever, Diarrhoea, Dysentery, Pneumonia, Urticaria, Typhus Fever, Tonsilitis, Glorsitis, Puerperal Fever.

*November.*—Rheumatism, Dysentery, Diarrhea, Bilious Fever, Typhus Fever, Puerperal Fever.

*December.*—Fever, Diarrhoea, Neuralgia, Rubeola.

In labors under my care during the past year, two-thirds have been male children. J. H. BEECH.



*Report of Mortality in Coldwater, Branch County, Michigan, Compiled from Cemetery Record and private sources during the year 1858, by J. H. Beech, M. D.*

| MONTHS.          | CAUSES OF DEATH. | AGES.          |                  |                   |                   |                   |                   |                   |                   |                   |                   |                   |   |
|------------------|------------------|----------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---|
|                  |                  | 1 yr & under 3 | 3 yrs & under 10 | 10 yrs & under 20 | 20 yrs & under 30 | 30 yrs & under 40 | 40 yrs & under 50 | 50 yrs & under 60 | 60 yrs & under 70 | 70 yrs & under 80 | 80 yrs & under 90 | 90 yrs & under 90 |   |
| January, .....   | Accident.        | 1              | 1                | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1 |
| February, .....  | Cholera Typhus.  | 1              | 1                | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1 |
| March, .....     | Cholera Typhus.  | 1              | 1                | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1 |
| April, .....     | Cholera Typhus.  | 1              | 1                | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1 |
| May, .....       | Cholera Typhus.  | 1              | 1                | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1 |
| June, .....      | Cholera Typhus.  | 1              | 1                | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1 |
| July, .....      | Cholera Typhus.  | 1              | 1                | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1 |
| August, .....    | Cholera Typhus.  | 1              | 1                | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1 |
| September, ..... | Cholera Typhus.  | 1              | 1                | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1 |
| October, .....   | Cholera Typhus.  | 1              | 1                | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1 |
| November, .....  | Cholera Typhus.  | 1              | 1                | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1 |
| December, .....  | Cholera Typhus.  | 1              | 1                | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1                 | 1 |
| Total, .....     | Cholera Typhus.  | 2              | 2                | 11                | 11                | 1                 | 31                | 1                 | 32                | 1                 | 2                 | 11                | 1 |



Condensed Record of Thermometer Readings, etc., during 1858, *F'hit in Shade, at Coldwater, Mich.,*  
by J. H. Beech, M. D.

| MONTHS.          | AVERAGES CALCULATED. |                          |               | MAXIMUM.                |                        |       | MINIMUM.               |         |                        | GREATEST RISE IN 24 H. |                        |          | GREATEST FALL.  |          |         |
|------------------|----------------------|--------------------------|---------------|-------------------------|------------------------|-------|------------------------|---------|------------------------|------------------------|------------------------|----------|-----------------|----------|---------|
|                  | At Seven<br>A. M.    | One o'<br>clock<br>P. M. | Nine<br>P. M. | Average<br>of<br>Month. | Tem-<br>pera-<br>ture. | Date. | Tem-<br>pera-<br>ture. | Date.   | Tem-<br>pera-<br>ture. | Date.                  | Tem-<br>pera-<br>ture. | Date.    | Ther.<br>Deg's. | Dates.   | Hour.   |
| January, .....   | 30.161               | 40.677                   | 31.838        | 31.838                  | 34.225                 | 54°   | 25                     | 9 P. M. | 10°                    | 9 P. M.                | 7 A. M.                | 24°      | 7 to 8          | 7 A. M.  | 18°     |
| February, .....  | 16.892               | 31.295                   | 18.486        | 22.213                  | 50                     | 27    | 1                      | 44      | 11                     | 22                     | 23                     | 5 to 24  | 7               | 1 to 22  | 7 A. M. |
| March, .....     | 33.806               | 46.629                   | 34.112        | 37.182                  | 63                     | 15    | 1                      | 44      | .2                     | 5                      | 7                      | 4 to 24  | 9               | 20 to 21 | 9 P. M. |
| April, .....     | 42.5                 | 55.086                   | 42.9          | 46.882                  | 78                     | 4     | 1                      | 44      | .27                    | 24                     | 9                      | 9 P. M.  | 20              | 7 to 8   | 1 " " " |
| May, .....       | 50.822               | 62.55                    | 51.322        | 55.243                  | 78                     | 30    | 1                      | 44      | .39                    | 11                     | 17                     | 9        | 25              | 12 to 13 | 1 " " " |
| June, .....      | 60.783               | 79.165                   | 65.523        | 70.405                  | 66                     | 30    | 1                      | 44      | .48                    | 16                     | 17                     | 9        | 16              | 10 to 11 | 1 " " " |
| July, .....      | 68.097               | 82.719                   | 73.312        | 93.5                    | 9                      | 1     | 44                     | .56     | 11                     | 12                     | 10                     | 12       | 6 to 6          | 1 " " "  |         |
| August, .....    | 64.222               | 79.532                   | 64.741        | 69.531                  | 95                     | 8     | 1                      | 44      | .46                    | 24                     | 7                      | 10 A. M. | 10              | 30 to 31 | 1 " " " |
| September, ..... | 55.9                 | 74.633                   | 57.833        | 62.588                  | 90                     | 7     | 1                      | 44      | .38                    | 23                     | 25                     | 7        | 28              | 13 to 14 | 1 " " " |
| October, .....   | 46.193               | 50.426                   | 48.461        | 51.339                  | 84                     | 3     | 1                      | 44      | .25                    | 10                     | 9                      | 10 P. M. | 26              | 2 to 3   | 7 A. M. |
| November, .....  | 31.463               | 39.15                    | 35.2          | 34.627                  | 52                     | 2     | 1                      | 44      | .9                     | 29                     | 7                      | 10 A. M. | 11              | 29 to 30 | 7 A. M. |
| December, .....  | 30.923               | 38.7                     | 31.466        | 33.639                  | 51                     | 13    | 1                      | 44      | .7                     | 9                      | 9                      | 9 P. M.  | 21              | 9 to 10  | 9 P. M. |

Average of the year, 49.280.

MARCH.—Frost on the 20th and 30th.

APRIL.—Ice on the 20th. Frost on the 27th.

MAY.—Frosts on 21st and 22d.

AUGUST.—Frost on 23d and 24th.

SEPTEMBER.—First frost and ice on the 12th, A. M.

OCTOBER.—First snow on the 7th.



## Record of Wind, Clouds and Storms during 1858, at Coldwater, Mich., by J. H. Beech, M. D.

| MONTHS.          | DIRECTION OF WINDS DURING PARTS OR ALL OF DAY. |      |     |      |    |      |     |        | CLOUDS.    |               |                  | RAIN STORMS. |                     |                | SNOW.      |                          |               |                 |
|------------------|--|------|-----|------|----|------|-----|--------|------------|---------------|------------------|--------------|---------------------|----------------|------------|--------------------------|---------------|-----------------|
|                  | East   | S.E. | S.  | S.W. | W. | N.W. | N.  | N.E.   | High winds | Date.         | Entirely cloudy. | No clouds    | No. days rain fell. | Thunder heard. | Hail fell. | Days snow great st fall. | Inches depth. | Greatest depth. |
| January, .....   | 1  | 8    | 1   | 2    | 11 | 12   | ... | 8      | ...        | 11, 25        | 1, 24th          | 1, 20th      | 5d                  | 1, 26th        | ...        | 6                        | 13th          | 1 ft.           |
| February, .....  | 2  | 13   | 4   | 10   | 6  | 9    | 2   | 7      | ...        | 6, 1 " "      | 1, 14th          | ...          | 7 "                 | ...            | 5          | 3d                       | 3 in.         |                 |
| March, .....     | 3  | 6    | 4   | 14   | 7  | 5    | 3   | 5 " "  | ...        | 2, 11th, 30th | 1, 2d            | 12 "         | 1, 20th             | 2              | 2          | 13th                     | 12 in.        |                 |
| April, .....     | 2  | 11   | 1   | 11   | 5  | 10   | 1   | 6, 1 " | 23         | ...           | 2                | 19 "         | 5                   | 2              | 3d         | 4 in.                    |               |                 |
| May, .....       | 1  | 1    | 6   | 19   | 1  | 5    | 1   | 6, 1 " | 30         | ...           | 2                | 14 "         | 7                   | ...            | ...        | ...                      |               |                 |
| June, .....      | 3  | 6    | ... | 16   | 4  | 6    | 4   | 8, 1 " | 29         | ...           | 2                | 12 "         | 2                   | ...            | ...        | ...                      |               |                 |
| July, .....      | 1  | 7    | 1   | 13   | 4  | 10   | ... | 3, 2 " | 11         | ...           | 12               | 12 "         | 2                   | ...            | ...        | ...                      |               |                 |
| August, .....    | 3  | 11   | 4   | 14   | 2  | 6    | 1   | 4, 1 " | 4          | ...           | 13               | 13 "         | 7                   | ...            | ...        | ...                      |               |                 |
| September, ..... | 7  | 12   | 2   | 14   | 4  | 4    | 1   | 7, 4 " | 4          | ...           | 1                | 8 "          | 1                   | 1              | 1          | ...                      |               |                 |
| October, .....   | 4  | 6    | ... | 10   | 4  | 11   | 2   | 5, 3 " | 4          | ...           | 18               | 18 "         | 1                   | 1              | 1          | ...                      |               |                 |
| November, .....  | 2  | 7    | 2   | 17   | 3  | 5    | 1   | 5, 3 " | 4          | ...           | 10               | 10 "         | 1                   | 1              | 1          | ...                      |               |                 |
| December, .....  | 29   | 102  | 22  | 167  | 42 | 86   | 16  | 62     | 24         | ...           | 5                | 12 "         | 5                   | ...            | 7          | 2d                       | 8 in.         |                 |
|                  |  |      |     |      |    |      |     |        |            | ...           | 5                | 13           | 8                   | 130 days       | 25         | 5                        | 15th          | 4 in.           |
|                  |  |      |     |      |    |      |     |        |            | ...           | 13               | 13           | 8                   | 130 days       | 25         | 5                        | 15th          | 4 in.           |



## ERRATA.

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Owing to a mistake, for which the Committee on Publication are not responsible, a large part of this Report went through the press without the proof-sheets having been submitted to them. In consequence, errata have occurred. The following are the more important :

Page 3, fourth line from the bottom, for "and," read "from."

Page 5, third line from the bottom, for "provision," read "institution."

Page 10, third line from the bottom, for "cholics," read "ecbolics."

Page 48, seventh line from the top, for "diavetice," read "diuretics."

Page 48, fourteenth line from the bottom, for "mercurial," read "mercurials."

Page 48, eleventh line from the bottom, for "toraxicum," read "taraxicum."

Page 48, tenth line from the bottom, for "visceras," read "visceral."

The office has no type for the characters used in apothecaries' weights. The proscription at the bottom of the page is :

Muriate of ammonia, one-half dram;

Fluid extract of taraxicum;

Aqua Pura, a. a. one ounce and a half.

Page 50, ninth line from the top, for "torraxicum," read "taraxicum."

Page 50, eleventh line from the bottom, for "f. zj," read "one fluid dram."

Page 51, tenth line from the bottom, for "diaretics," read "diuretics."

Page 51, ninth line from the bottom, for "diaretic," read "diuretic."

Page 52, second line from the top, for "tanum," read "tannin," and for "rino," read "kino."

Page 60, strike out eleventh line from the bottom.

Page 62, seventh line from the top, for "Horpital," read "Hospital."

Page 65, ninth line from the top, for "ephysis," read "epiphysis."

Page 66, bottom line, for "Brodris'," read "Brodie's."

Page 69, tenth line from the bottom, for "atrophird," read "atrophied."

Page 72, second line from the top, for "acronium," read "acromion."

Page 72, tenth line from the bottom, for "heats," read "heals."

## АТАЭЛЭ